

A NEW SPECIES OF SCAPTIA (MYIOSCAPTIA) FROM  
NORTHERN QUEENSLAND (DIPTERA: TABANIDAE)<sup>1</sup>

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ABSTRACT—*Scaptia* (*Myioscaptia*) *inopinata* is described from Northern Queensland.

On a recent trip to Australia, Fairchild was able to spend a week collecting in the vicinity of Cairns, Northern Queensland. Through the great courtesy of Mr. and Mrs. Alan Walford-Huggins, two days were spent on the Little Mulgrave River near Gordonvale. The collecting site was in heavy tropical rainforest along the rocky banks of this small river. Tabanidae were quite abundant, contrary to experience elsewhere near Cairns, and we took some 13 species, both attacking us and in a large flight trap.

Metallic blue *Scaptias* were especially abundant and persistent in their attacks, and seemed to consist of two very similar species, one with bright coppery-red eyes and bright silvery frons, the other with reddish-brown eyes and a more greyish frons. No differences in habits were noted and the two forms were taken in about equal numbers, both attacking us and in the flight trap.

Upon conferring with Mackerras in Canberra, it appeared that only one species of brilliantly metallic *Scaptia* has been hitherto recognized, *S.* (*Myioscaptia*) *violacea* (Macq.), and both forms stood under this name in the collections at Canberra. Further study by both of us revealed other small but consistent differences, discussed below.

The identity of the true *S. violacea* was confirmed for us by Dr. L. Tsacas of the Museum d' Histoire Naturelle in Paris who very kindly compared both forms with Macquart's type, which probably came from the vicinity of Sydney.

*Scaptia* (*Myioscaptia*) *inopinata* Fairchild and Mackerras, new species

Very similar to *S.* (*M.*) *violacea* but differing by lacking greyish pruinose stripes on mesonotum, being more brilliantly metallic, and in bearing a small tuft of black hairs on the margin of the calyptal fold, whitish in *violacea*.

Female. Length, 8 mm; wing, 9 mm. Eyes densely pilose, coppery red in life, becoming bronzy black on drying. Frons 3.2 times as high as basal width,

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slightly narrower at vertex, clothed with silvery white pubescence and scattered erect black hairs. Three prominent dark brown ocelli at vertex and short transverse ridgelike median protuberance about  $\frac{1}{4}$  distance from base to vertex of frons. Subcallus with same white pollinosity as frons. Fronto-clypeus and genae blackish, subshiny, sparsely black-haired. Proboscis black, theca and labella sclerotized and shiny, the latter compact, proboscis slightly less than head height. Palpi yellow, pale haired except for scattered blackish hairs on margins, flat and leafshaped. Antennae with scape and pedicel dark brown, thinly grey pollinose, beset with long dark hairs. Flagellum yellow, of 8 segments, first as long as next 3 together, last segment about twice length of preceding segment, pointed.

Mesonotum and scutellum brilliant shining prussian blue, without grey pruinosity. Prothoracic lobes horn-colored. Notopleural lobes duller blue, pleura, sternum and coxae bluish black subshiny, black haired, including tuft on calyptal fold and near the base of alula beneath wing. Legs black, except pulvilli yellow and undersides of tarsi rufous-haired. Wings glass-clear, only costal cell very slightly yellowish, venation normal, stigma broad and black. Halteres dull brown.

Abdomen shining metallic purple above, somewhat more bluish below, sparsely short dark-haired, inflated and plump.

Holotype ♀, Northern Queensland, Cairns district, Gordonvale, Little Mulgrave River 12 Nov. 1972, attacking man. G. B. Fairchild coll.

Male. Length, 8.5 mm; wing, 9 mm. Eyes barely holoptic, long pilose, upper  $\frac{2}{3}$ ; bronzy and facets slightly larger than those of lower greenish-black  $\frac{1}{3}$ . Larger facets not clearly demarcated from the smaller. Eye color in life unknown. Frontal triangle silvery pollinose, subcallus yellowish pollinose in middle, brownish at sides. Proboscis as in female, but more slender. Antennae more slender than female, scape and pedicel yellowish brown, flagellum yellow, with terminal segment slightly dusky. Palpi cylindrical, correct, brown, terminal  $\frac{1}{3}$  with flattened yellow area on outer side.

Mesonotum and scutellum brilliant shiny metallic bottle green, without pollinosity. Prothoracic lobes horn-colored. Notopleural lobes, pleura, sternum and coxae duller green. Hairs including tuft beneath wings black. Legs as in ♀. Wing as in ♀, except stigma yellow, inconspicuous. Halteres yellowish brown.

Abdomen concolorous with mesonotum, except 3rd and succeeding segments are increasingly yellowish green to brassy, and hairs denser and longer than in ♀.

Allotype ♂, Northern Queensland, Lamb Range, Mt. Tiptree, 3500 ft., 15 Nov. 1972, A. and M. Walford-Huggins colls.

Paratypes, 27 ♀♀, same locality and collector as holotype, 9 and 12 Nov. 1972, attacking man and in flight trap; 1 ♀, N. Queensland, Cairns district, Crystal Cascade, 10 Nov. 1972, Geo. Brooks coll.; 1 ♀, same data as Allotype; 1 ♀, N. Queensland, Kuranda, Oct. 1910, F. P. Dodd coll.; 1 ♀, N. Queensland, Palm Island, Dec. 1931, Mackerras coll. 1 ♀, N. Queensland, Dambulla, 24 Oct. 1962 Marks and Barrow Colls.; 1 ♀ N. Q., Yungaburra Dec. 1961, B. L. and B. May coll. Holotype, allotype and some paratypes to be deposited in Australian National Insect Collection, Canberra. Other paratypes in Coll. G. B. Fairchild.

The paratypes vary somewhat in size, from a wing length of 7 mm to 9 mm. Color also is variable, ranging from pure blue to rich violet, the mesonotum, scutellum and abdomen being either concolorous or not, in various combinations. Only the Palm Island specimen is slightly greenish, though not so green as the male. Palpi are variable in shape, from almost as broad as long to twice as long as broad. Antennae may be wholly yellow, or last segment more or less dusky. Wing stigma is usually black, more rarely brown, but no females have it as pale as in the male. Measurement of frons of 16 specimens give a median index (length)/(basal width) of 3.15, and mean of 3.12, with a range from 2.9 to 3.4.

The species needs comparison only with *S. (M.) violacea*.

In *violacea* the frons averages somewhat narrower, median index 3.85, mean 3.66 with a range of 3.2 to 4.6, 33 specimens measured. The eye is dull reddish brown in life. The mesonotum is duller, with a definite pair of dorsolateral greyish pollinose stripes at least anteriorly. The notopleural lobes, pleura and coxae are hardly metallic, being dull greyish black with hardly a trace of blue. The hairs of the small tuft on the calyptal fold near base of alula are creamy white, contrasting with the remainder of the vestiture. The pollinosity of frons is grey, not silvery white, and there is usually a well-marked denuded club-shaped median callus. Legs, palpi, antennae and wings are the same as in *inopinata*, though stigma is frequently yellowish brown. The abdomen is much as in *inopinata* but slightly duller and with some grey pruinosity on first and second segments laterally and ventrally. Colors are about the same, though *violacea* seems to be more often bluish to greenish than purple. Specimens of *violacea* taken with *inopinata* contrast more with the latter, being duller and more pollinose than those from S. Queensland where *inopinata* has not been taken.

Material examined (listed from north to south). *Queensland*: 6 ♀ Mossman Gorge, 27 Oct. 1966, in rain forest, E. B. Britton coll.; 1 ♀ Dambulla, 24 Oct. 1962, biting in bush 1500–1700 hrs., E. N. Marks & G. Barrow coll.; 1 ♀ Mt. Lewis via Julatten 3500–4000', 26–28 Nov. 1965, G. B. Monteith coll.; 1 ♀ Kuranda, F. P. Dodd coll.; 2 ♀ Cairns dist., Crystal Cascade, 10 Nov. 1973, George Brooks coll.; 34 ♀ Gordonvale, Little Mulgrave R., 9 and 12 Nov. 1972, attacking man and in flight trap, G. B. Fairchild coll.; 1 ♀ Atherton dist., The Crates, 7 Dec. 1966, B. Cantrell; 2 ♀ Eungolla, nr. Mackay, Oct. 1928, G. M. Goldfinch and A. T. Turner coll.; 1 ♀ Gympie dist., 5 Nov. 1957, T. E. Woodward coll.; 1 ♀ Bunya Mts., 14 Dec. 1957, F. A. Perkins coll.; 1 ♀ Kilcoy, 29 Dec. 1925; 1 ♀ Woodford, 12 Nov. 1924; 1 ♀ Mt. Clorious, 6 Nov. 1962, S. Fanning coll.; 1 ♀ Brisbane dist., Highvale, 10 Dec. 1959, R. Straatman coll.; 1 ♀ Toowomba, Dec. 1932, T. Greaves coll.; 16 ♀ Mt. Tamborine, 4 Nov. 1961, I. F. B. Common & M. S. Upton coll.; Dec. 1961, C. R. Eden coll.; 1 ♀ Thunderbird Park, 16 Nov. 1972, in flight trap, G. B. Fairchild coll.; 5 ♀ Rathdowney, Palcer Creek State Forest, 13 Dec. 1966, T. G. Campbell coll.; 1 ♀ Upper

Coomera R., 16 Nov. 1972, attacking man, R. Sutherst coll.; 1 ♀ Springbrook, 4 Dec. 1949, I. M. and M. J. Mackerras coll.; 2 ♀ Binna Burra, Dec. 1957, E. M. Exlay coll.; 1 ♀ Surprise Rock, 14 Nov. 1952, biting man, I. M. Mackerras; 10 ♀ National Park, Dec. 1921, H. Hacker coll., Jan. 1928, A. J. Nicholson coll.; 2 Nov. 1956, F. A. Perkins coll.; 2 ♀ McPherson Range, 2000-3000', Dec. 1919; 1 ♀ Mt. Barney, 24 Dec. 1961, J. Bryan coll. *New South Wales*: 4 ♀ Kyogle dist., Paddy's Flat, 13 Nov. 1961, J. H. Calaby coll.; 1 ♀ Mt. Matheson, 2400', 12 Dec. 1962, K. R. Norris coll.; 1 ♀ Dorrigo National Park, 11 Nov. 1967, N. Dobrotworsky coll.; 1 ♀ Comboyne, 9 Nov. 1917, F. R. Pfeiffer coll.; 2 ♀ Kundibakh, nr. Taree, C. Dennes coll.; 1 ♀ Upper Williams R., Barrington House, 28 Dec. 1965, B. Cantrell coll. After the above description was set in type, further material was received from the U.S. National Museum, consisting of 3 ♀ Paratypes of *S. inopinata* from Palm Island, N. Queensland, no date or collector, and 3 ♀ of *S. violacea*, Sydney, N. S. Wales (1); National Pk., Queensland, 3000 ft., 2 Nov. 1952 (1); and Mt. Lindsay, S. Queensland, 26 Dec. 52 (1).

Finally, it has also been possible to re-examine most of the specimens of "*violacea*" recorded by Mackerras (1960). The male and female terminalia illustrated in fig. 43 (p. 33) and 160 (p. 129) are of *inopinata* from Palm Island. We have not found a male of *violacea* in any collection, old or recent; the terminalia of a dissected female from the National Park, S. Queensland, did not appear to differ in any significant way from those of the *inopinata* female noted above, a further indication of the close relationship between the two species. The combined distribution listed on p. 124 is corrected in the present paper, except for the records from Babinda and Mt. Spec, N. Queensland, which we have unfortunately not been able to check.

#### REFERENCE

- Mackerras, I. M. (1960). The Tabanidae (Diptera) of Australia. II. Subfamily Pangoniinae, Tribe Scioninae, Tribe Scionini and supplement to Pangonini. *Aust. J. Zool.* 8:1-152.